AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated below.

1. (Original) A method for communicating data over a subscriber loop using a modem, the method comprising the steps of:

transmitting data on the subscriber loop in a first frequency band;

sensing an indication that simultaneous transmission of signals on the subscriber loop in a POTS frequency band is imminent; and

adjusting transmit power in the first frequency band, in response to the sensing step.

2. (Original) The method of claim 1, wherein first frequency band has a lower boundary of approximately 20 kHz.

3. (Original) The method of claim 1, wherein the adjusting step comprises reducing transmit power in the first frequency band.

4. (Original) The method of claim 1, wherein the adjusting step adjusts transmit power such that interference with transmitted signals in the POTS frequency band is reduced.

5. (Original) The method of claim 1, further comprising shaping a power spectrum of the first transmit band such that interference with transmitted signals in the POTS frequency band is reduced.

6. (Original) The method of claim 1, further comprising sensing an indication that cessation of the simultaneous transmission is imminent.

7. (Original) The method of claim 6, further comprising adjusting transmit power in the first frequency band, in response to a cessation of the simultaneous transmission.

8. (Original) The method of claim 6, wherein the adjusting transmit power in the first frequency band comprises increasing transmit power in the first frequency band.

9. (Original) The method of claim 1, wherein the sensing step comprises sensing an incoming ring signal on the subscriber loop.

10. (Original) The method of claim 1, wherein the sensing step comprises sensing a voice conversation on a telephone electrically connected to the subscriber loop.

11. (Original) The method of claim 1, wherein the sensing step comprises sensing an off-hook condition of a telephone electrically connected to the subscriber loop.

12. (Original) The method of claim 11, wherein the sensing of an off-hook condition step comprises sensing a change in impedance of the subscriber loop.

13. (Original) The method of claim 11, wherein the sensing of an off-hook condition step comprises sensing a voltage on the susbscriber loop.

14. (Currently Amended) A modem for communicating data across a subscriber loop comprising:

an input/output connection in communication with the subscriber loop;

a processor unit configured to operate in one of at least two states, the first state characterized by a first transmit power spectrum in a first frequency band, the second state characterized by a second transmit power spectrum in the first frequency band, where the second transmit power spectrum is reduced relative to the first transmit power spectrum;

a sensing means for sensing a demand for simultaneous usage of the subscriber loop, where said usage occurs in a POTS frequency band; and

a control means responsive to the sensing means for controlling the operating state of the processor unit, wherein upon the sensing of demand for usage, the control means causes the processor to operate in the second state.

15. (Original) The modem of claim 14, further comprising a sensing means for sensing no dmeand for usage of the POTS frequency band, wherein upon the sensing of no demand, the control means causes the processor to operate in the first state.

16. (Original) The modem of claim 15, wherein the sensing means further comprises a means for detecting an incoming ring signal on the subscriber loop.

17. (Original) The modem of claim 15, wherein the sensing means further comprises a means for sensing a voice conversation on a telephone electrically connected to the subscriber loop.

18. (Original) The modem of claim 15, wherein the sensing means further comprises a means for sensing an off-hook condition of a telephone electrically connected to the subscriber loop.

19. (Original) The modem of claim 18, wherein the means for sensing an off-hook condition comprises a means for sensing an impedance change on the input/output connection.

20. (Original) The modem of claim 18, wherein the means for sensing an off-hook condition comprises a means for sensing a voltage drop on the input/output connection.

21. (Original) A method for dynamically communicating data over a subscriber loop using a modem, the method comprising the steps of:

transmitting data in a first frequency band;

sensing an indication that cessation of simultaneous transmission of signals on the subscriber loop in a POTS frequency band is imminent; and

adjusting transmit power in the first frequency band, in response to the sensing step.

22. (Original) The method of claim 21, wherein the first frequency band has a lower boundary of approximately 20 kHz.

23. (Original) The method of claim 21, wherein the adjusting step comprises increasing transmit power in the first frequency band.

24. (Original) The method of claim 21, wherein the sensing step comprises sensing an on-hook condition of a telephone electrically connected to the subscriber loop.

25. (Original) A modem for communicating data across a subscriber loop comprising:

an input/output connection in communication with the subscriber loop;

a processor unit configured to operate in one of at least two states, the first state characterized by a first transmit power spectrum in a first frequency band, the second state characterized by a second transmit power spectrum in the first frequency band, where the second transmit power spectrum is reduced relative to the first transmit power spectrum;

a sensing means for sensing a cessation in demand for simultaneous usage of the subscriber loop, where said usage occurs in a POTS frequency band; and

a control means responsive to the sensing means for controlling the operating state of the processor unit, wherein upon the sensing of cessation, the control means causes the processor to operate in the first state.

26. (Original) The modem of claim 25, wherein the sensing means further comprises a means for sensing an on-hook condition of a telephone electrically connected to the subscriber loop.

27. (Original) The modem of claim 26, wherein the means for sensing an on-hook condition comprises a means for sensing an impedance change on the input/output connection.

28. (Original) The modem of claim 26, wherein the means for sensing an off-hook condition comprises a means for sensing a voltage increase on the input/output connection.

29. (Original) A method for dynamically communicating data over a subscriber loop using a modem, the method comprising the steps of:

sensing an indication that POTS on the subscriber loop is operable to transmit signals on a POTS frequency band;

transmitting data in a full-band transmission state, in response to the indication step indicating operable; and

transmitting data in a band-limited transmission state, in response to the indication step indicating not operable,

where the full-band transmission state is defined by data transmission in a frequency band including frequencies above and below approximately 4000 Hertz, and the band-limited state is defined by data transmission in a frequency band including frequencies only above approximately 4000 Hertz.